# GALAXIAS UNICAM

## Agroecological shelters for positive living

*A case study from Argentina*

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*Photos Courtesy: Coordination team La Dorotea shelter*

# LOCAL AND SUSTAINABLE PRODUCTION OF HEALTHY FOODS

The Galaxias Refugios Universidad Campesina - Sistemas Rurales Indocampesinos (UNICAM SURI) project emerged in 2018 in response to the growing need for therapeutic environments promoting both ecological and mental well-being, rooted in a vision of rural life and agroecological practices in Argentina.

UNICAM SURI, the peasant university affiliated with an alliance of various grassroots organisations advocating for the rights and interests of peasants, Indigenous Peoples, and rural communities in Argentina, known under the acronym of MOCASE-VC-MNCI, originates from Indigenous peasant ethos and aspirations. It educates youth from diverse backgrounds across the country in a range of disciplines, including communications, animal and plant husbandry, bioconstruction, ecological stewardship, legal frameworks for human and territorial rights, social psychology, community development, and healthcare professions, among others.

The Galaxias Refugios of UNICAM SURI boasts partnerships with numerous public universities and faculties of psychology and medicine. Additionally, for the past 12 years, it has fostered reciprocal cooperation agreements with SEDRONAR—the National Secretariat for the Prevention and Fight Against Drug Addiction—as well as various local and zonal government services within Buenos Aires Province.

Critically, social psychology stands as a cornerstone of this endeavour. It represents not only a scientific discipline but also an epistemological technique that challenges the conventional wisdom of classical Eurocentric psychologies. Particularly, it interrogates the efficacy and ethics of traditional approaches, such as the repressive methods often associated with boarding schools or asylums.

Our socio-community operators, trained at UNICAM SURI, run small-scale rural farms dedicated to various agroecological endeavours. These initiatives aim to provide refuge and support to marginalised individuals such as women, youth and migrants facing homelessness, survivors of gender-based and sexual violence, familial rejection, and other consequences of social, environmental, and gender injustice.

## LA DOROTEA GALAXIA

In this article, we delve into the agroecological agro-food community system cultivated within the confines of the La Dorotea therapeutic community in the rural town of Mercedes, Buenos Aires Province. Two shelters are currently in operation, with an additional two in the process of opening. They are situated in Máximo Paz, Santa Fe Province; Apipé Island, in the province of Corrientes; and El Pueblito, Córdoba Province. While several other shelters exist across different municipalities or territories, their coverage extends beyond the intended scope of this article. Nevertheless, we trust that this overview provides an enlightening example.

*Daily care of laying hens - changing the water (2023)*

From 2019 to 2023, activities at La Dorotea have included wheat cultivation, pasture management, free-range chicken and egg production, fruit orchard cultivation, dairy sheep breeding and grazing, and value-added products such as crafting of sweets, pickles, and preserves.

This system operates across three hectares of arable land dedicated to cultivation and an additional hectare allocated for infrastructure, recreational spaces, and livestock enclosures, where we find a house with bedrooms, bathroom, kitchen, dining room, and a gallery, as well as a shed, animal pens and a park with flowers and fruit trees.

Since 2018, young women living in the Galaxias Shelter who do not have maternal or paternal figures responsible for their care and development have been receiving support from the Local Services for the Promotion and Care of Children and Adolescents. This state agency collaborates closely with the Family Court, specifically in this case, within the jurisdiction of Mercedes. Together, their objective is to restore the rights of these young women by referring them to appropriate organisations or care homes. There, they can resume their education and health routines, acquire vocational skills, and engage in activities conducive to their growth within a healthy and nurturing environment.

The young women at the Galaxias Shelter have made the conscious decision to reside within our community, engaging in training, study, and work with us in the field. They actively participate in a wide range of activities, including planting and nurturing wheat crops and then selling the final product: agroecological whole wheat flour.

## AGROECOLOGICAL WHEAT PRODUCTION

Work got underway at La Dorotea by sourcing agroecological wheat seeds from local producers and breeders in southern Santa Fe. Once acquiring the seeds, we sought assistance from a neighbouring farmer to plough the land. After three days, together we sowed the seeds "al voleo" – manually spreading the wheat on the three-hectare property. The land, previously used for agroecological production for crops such as squash and corn, had undergone sustainable practices, including crop rotation, where the land is rested from growing and enriched with organic matter, in this case, goat manure. Thanks to these practices, we encountered no pest problems during the entire wheat cultivation and harvesting process, and invasive weeds were kept in check through diligent hoeing whenever necessary.

Once the wheat reached optimum maturity and dried, a nearby farmer with a thresher harvested the seeds, and we transported the yield to the Campo Claro cooperative stone mill in the neighbouring town of Carlos Keen. The mill only processes agroecological inputs, ensuring its machinery is clean and free of phytosanitary products.

Approximately two tons of wheat were processed, yielding roughly 2,775 kg of whole wheat flour. The flour was then divided into 1 kg and 25 kg packages for sale, contributing to income generation and economic empowerment of the community.

At this juncture, members of the Galaxia Refuge engaged with the local agroecological network to facilitate the distribution and sale of the flour, with notable involvement of the UTEP people's economic network (Union of Workers of the Popular Economy). The people's economy is an important and vital aspect of our story. Derived from the World Social Forum and its strength in Brazil, in different Latin American countries, including Argentina, debates emerged on social and solidarity economy, a notion that later became the "people´s" economy.

According to Argentinian economist José Luis Corragio, "The empirical economy of workers, dependent or self-employed, of those who live or want to live from their work, is the economy of their families, communities, associations, organisations, and networks of cooperation or mutual aid, formal or informal. ... [They] fundamentally depend on the continuous realisation and development of their own workforce (energy, skills, knowledge), independent or autonomous forms, to survive and sustain collective projects of dignified living. ... It is the main basis of a solidarity economy, with a sense opposite to the competitive economy of capital."

In Argentina, a broad alliance of organisations that were then "piqueteros" and peasant movements created the Confederation of Workers of the People´s Economy - CTEP. Still, over time, there was a perceived need to establish itself as a union, which is why the UTEP emerged, of which both MOCASE and UNICAM SURI are members.

With the help of UTEP, the profits of the sales exceeded the costs of the seeds, rental of ploughs, threshing, and grinding, leaving us a surplus of money that served to support other projects of the Refuge and to enjoy communally with good meals, outings to festivals, and other activities.

A large part of the flour was also used to produce bread for "Fogones snack bars" (community food centres run by social organisations with a state contribution) in Santiago del Estero, as well as being distributed to those seeking refuge in the Galaxias Shelters.

This experience with wheat is particularly relevant for Argentina, a country widely known for its widespread use of agrochemicals. According to a 2019 study by Florencia Arancibia, Peter Clausing, and Renata Campos Motta, pesticide use in Argentina increased more than tenfold over the preceding two decades, with more than 50 active pesticide ingredients banned in the European Union still being sold in Argentina.

The Food and Agriculture Organization of the United Nations (FAO) estimated that three times more pesticides are used per hectare in Argentina than in the United States or Spain. For wheat, although less compared to corn (7.1 kilos/hectare) and soybeans (5.4 kilos/hectare), 2.8 kilos per hectare are used, which affects the soil, water, sediment, and biodiversity, as well as the health of workers and the surrounding population.
Apart from the overuse of agrochemicals, the Ministry of Agriculture, Livestock and Fisheries of the Nation also approved the use of transgenic HB4 wheat in 2022, despite great fears and widespread protests against it from producers, medical professionals and environmental organisations. Since 2023, for the first time worldwide, the population of a country is eating genetically modified wheat in mass consumption foods such as bread, pizzas, empanadas, and noodles, without people being able to identify whether they are eating genetically modified wheat or not, since In Argentina there are no laws that require it to be stated. The Institute of Socio-Environmental Health (InSSA-UNR) highlighted that there is no scientific evidence that demonstrates the safety of HB4 wheat and that in Argentina, Genetically Modified Organisms (GMOs) are approved by "studies" by the companies themselves, which are not in the public domain.

In the international context, a draft resolution approved in February 2024 at the sixth UN Environment Assembly, organised by the United Nations Environment Program (UNEP), calls for effective measures to "phase out hazardous pesticides in agriculture, where the risks have not been managed, and safer alternatives exist." The Galaxias Refugio experience contributes not only to reducing related risks at a local level, considering the high rate of use of agrochemicals in the country, but also to promoting the transition towards safer alternatives, led by communities with a history of historical struggles in the field, which guarantee safety and the right to inform the population about the associated risks.

La Dorotea's work then contributes to eroding corporate power and the "food safety at any cost" narrative, even with the risk of making consumers sick. The production of flour, in a community and agroecological way that highlights the role of women and diversities throughout the process, contributes through practice and reflection to challenging discourses and reminds us that, as the common adage in Spanish says, "He who has your bread has your dignity."

## PASTURES

After the wheat season, Argentina experienced two consecutive years of unprecedented drought. Consequently, we suffered losses in our chacras (collective orchards), affecting crops such as corn and squash. However, this adversity prompted a shift in focus towards our sheep.

Subsequently, we embarked on new land management strategies. With the return of rainfall in the spring and summer seasons, we opted to sow moha, a versatile millet variety used for both grazing and grain production. Moha boasts rapid growth, reaching maturity within a short span of three to four months. Its cultivation serves a dual purpose: providing robust pasture while also yielding seeds for future plantings. Additionally, moha serves as an effective organic weed control method, outcompeting other plants in growth and vigour and preparing the soil for subsequent winter pastures as part of our crop rotation.

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This lush moha pasture provides nourishment for our dairy sheep. Once it completes its growth cycle, we prepare it in rolls for winter forage. We have dedicated 1.5 hectares of land to moha cultivation, while the remaining half lies fallow after soil preparation.

Historically, Argentina has been closely tied to extensive livestock farming within the Latin American context. While this association typically conjures images of cattle, the predominant species, it's worth noting the significant presence of other livestock, such as goats and sheep. In 2022, about a third of all livestock meat was exported, mainly to China and Israel. 20.7% of national GHG emissions in Argentina came from the livestock sector. It's worth noting that these calculations may not include emissions from transportation to such distant destinations.

Furthermore, livestock farming is currently the leading cause of deforestation in Argentina. Due to these undeniable environmental impacts, the UBA Faculty of Agronomy knows that livestock farming is at the centre of the debate.

*Workshop on shearing techniques with UBA veterinarians (2023)*

One alternative they advocate for is the adoption of grazing and foraging systems akin to those implemented at La Dorotea Galaxia. Additionally, local agroecological consumption, rooted in equitable trade practices, presents itself as a frequently overlooked solution to address the climate crisis.

Numerous studies indicate that small ruminants will play a crucial role in animal protein production in climate adaptation scenarios, as they exhibit better heat tolerance and have minimal impacts on soil compaction while aiding in soil fertilisation. Inspired by the example set by La Dorotea Galaxia, local community members have embarked on sheep-raising endeavours, thereby securing a healthy and ecologically responsible dietary source.

## PASTORAL HENS AND FIELD EGGS

When we first began work on La Dorotea, we acquired 300 laying hen pullets through the National Institute of Agricultural Technology of Argentina. The process began with preparing a suitable space for nurturing the chicks. Heat lamps, drinkers, feeders, and sawdust-covered flooring were meticulously arranged to ensure the chicks' well-being and hygiene.

As the grazing season approached, in collaboration with women diversities, we diligently readied the chicken coop —a spacious enclosure furnished with perches for roosting, internal lighting, and a roof. Nests and tarps were strategically incorporated to preserve warmth during colder periods.

As the laying season reached its peak, our hens consistently yielded an average of 200 eggs per day. Benefiting from the open fields, the chickens grazed freely on the wheat, harmoniously coexisting with the surrounding environment. Despite their occasional pecking, they demonstrated remarkable restraint, ensuring the mature wheat crop remained intact.

*Collecting eggs from free-range hens (2023)*

They share the moha pasture with dairy sheep, fostering a symbiotic relationship within the ecosystem. The daily responsibilities of our community entail meticulous care for the chickens, ensuring they have access to clean water and nutritious feed, along with the diligent collection and cleaning of eggs. Furthermore, the eggs are sold as part of our sustainable business model.

Through these endeavours, we have cultivated thriving enterprises and enduring personal and professional connections that persist to this day.

## WILD FRUIT

The adjacent property to our home boasts a charming fruit orchard featuring an array of trees bearing purple plums, peaches, white and black figs, blackberries, and two grapevines. Over the years, we have engaged in thoughtful orchard management, replacing ageing peach trees with new ones, courtesy of fruit-growing promotion initiatives facilitated by the municipality of Mercedes.

We fully utilise the bounty of fruits harvested from the orchard. Whether consumed fresh or preserved, they find their way into our meals and homemade preserves. In instances of surplus fruit or damage caused by birds— a common occurrence attributed to the influx of invasive species—we enlist the assistance of our free-ranging chickens. They roam the countryside, feasting on excess fruit and tidying up fallen blackberries, ensuring nothing goes to waste. This symbiotic relationship allows us to maximise the yield from our orchard while maintaining ecological balance.

*Harvesting plums for the production of homemade candies (2023)*

## BREEDING AND GRAZING DAIRY SHEEP

In our shelter, we care for 30 sheep, including 25 dairy breeds, one dairy breed ram, and four butcher breed ewes. Our sheep production journey commenced in 2020 with the generous donation of nine Pampintas sheep, a prized dairy breed, from a local producer. Over time, we nurtured and bred these animals, occasionally crossing breeds to achieve self-sufficiency in meat production for the shelter.

We dedicate six hours each day to herding the sheep within our property. Additionally, we lead them onto nearby dirt streets, allowing them to graze on grass, herbs, and foliage growing along the sidewalks.

This rotational grazing practice showcases our work to the community and facilitates lamb sales and exchanges with other sheep producers who pass down the nearby streets.

*Sheep eating moha (2023)*

After grazing, we guide the flock back to their enclosure, where they receive supplemental corn feed before milking begins. Our next milestone is to produce milk for yoghurt-making, a process supported by veterinary experts from the University of Buenos Aires (UBA). Collaborating with the university's "Little Ruminants" dairy farm, we host bimonthly workshops focused on sheep husbandry practices, including vaccinations, hoof care, shearing techniques, birthing assistance, and disease identification. These sessions involve active participation from shelter residents, UBA veterinary students, and local producers from the Mercedes area.

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Our commitment to providing agroecologically-raised lambs and attentive care has earned us a reputation for delivering exceptional quality products at fair prices. Consequently, our loyal customers continue to choose and recommend us year after year.

## VALUE ADDED ROOM: Production of sweets, pickles and preserves

Finally, we are making strides in the construction of a value-added processing room. Within the confines of the La Dorotea property, we have established a dedicated space equipped with essential machinery, including pans for sweets, milk processing equipment, stainless steel tables, pots, and pressure cookers.

These vital tools and machines were acquired in April 2023 through a project spearheaded by the Ministry of Agriculture, Livestock, and Fisheries under the auspices of the Secretary of Family Agriculture and the Gender and Diversity Directorate. Originating in late 2020, the En Nuestras Manos project was instrumental in procuring this equipment, with the aim of fortifying workspaces for women and diversities at the shelter.

The primary objective of this facility is to provide employment opportunities for women and diversities and local residents who own fruit orchards, empowering them to add value to their agricultural produce.

## FINALLY...

Ancestral wisdom systems rooted in grazing practices, sustainable production methods, reverence for nature, and the marketing of peasant foods have imparted invaluable lessons to us. Above all, they have guided us along paths that demanded self-examination and the willingness to step out of our comfort zones to safeguard the precious gift of life bestowed by the earth. This journey has led us into our neighbourhoods, where we have engaged in the vital tasks of selling, communicating, and confronting stereotypes. Over time, these efforts have fostered confidence in our abilities and the products we create.

We hail from diverse backgrounds, originating in neighbourhoods, villages, and often overlooked corners of society. Yet, through perseverance and dedication, we have assumed leadership roles, charted new pathways, and are eager to continue sharing the knowledge we have gained along the way.

*Refugee admiring the agroecological wheat (2023)*


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